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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,902

01/29/2004

Kiyoshi Kohiyama

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STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

BITAR, NANCY

ART UNIT

PAPER NUMBER

2624

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/765,902	<b>Applicant(s)</b> KOHYAMA ET AL.	
	<b>Examiner</b> NANCY BITAR	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10, 12-17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-17, 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, in the RCE filed 3/17/2008, with respect to the rejections of claims 1-3, 5-10, 12,-17, 19-21 have been fully considered but are moot in view of the new ground(s) of rejection necessitated by the amendments. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Venkatesan et al ( US 6,801,999).

### **Examiner Notes**

2. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

### ***Claim Rejections - 35 U.S.C. § 103***

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3,5-10,12-17,19-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Demos et al.(6957350) ,in view of Ciacelli et al. (US 6,236,727), and further in view of Venkatesan et al ( US 6,801,999).

As to claim 1, Demos et al. teaches an apparatus for creating an image processing program, comprising (watermarking has the goal of placing a symbol and/or serial number style identification marks on the image stream which are detectable to analysis, but which are invisible or nearly invisible in the image, column 22, lines 45-49): a program selecting unit that selects at least one watermarking program from among a plurality of watermarking programs for inserting electronic watermark data (step 1400, figure 14) into moving image data that are encrypted, compressed, or both encrypted and compressed (encryption and watermarking the compressed data, column 21, lines 5-67) ; an area selecting unit that selects at least one area ( it is better to watermark the larger number of B frames , column 22, line 60 and figure 7) for inserting the selected at least one watermarking program from among a plurality of areas( watermarking as a function of unit dependency with respect to I,P,B frames, column 22, lines 55) in a processing program that performs decrypting, expanding, or both decrypting and expanding the moving image data( key management, encryption/decryption, column 28, lines 31-67); and a program inserting unit that generates the image processing program by inserting the selected at least one watermarking program to the selected at least one area of the processing program , wherein the electronic watermark

data include a unique tamper resistant module which is an image processing apparatus that executes the image processing program and the unique number is encrypted by a unique encryption key of the tamper resistant module(step 1401, figure 14). While Demos et al meets a number of the limitations of the claimed invention, as pointed out more fully above, Demos teaches GOP can have the benefits of unique treatment and modularity, and can be decoded and/or decrypted in parallel or out-of-order with other GOPs in non-real-time or near-real-time (slightly delayed by a few seconds) applications (such as electronic cinema and broadcast). The final frames need only be ordered for final presentation, column 23, lines 1-16) but fails to specifically teach that the watermark include a unique tamper resistance module which is an image processing apparatus wherein the unique number is encrypted by a unique encryption key of the tamper resistant module. . Specifically, Venkatesan et al teaches embedding n watermarks throughout a software object, through use of n different secret watermark keys to form a protected object, with each key defining a pointer to a location in the protected object at which a corresponding watermark appears thus applying the watermark key of the tamper resistance as seed to a pseudo-random number generator so as to yield a pseudo-random physical address of a pixel in an image It would have been obvious to one of ordinary skill in the art to use Venkatesan unique number of a tamper resistance module in Demos encryption process in order to protect against unauthorized copying or modification thus increasing authenticity, integrity and a robust tamper resistance. Therefore, the claimed invention would have been obvious to one of ordinary skill in the art at the time of the invention by applicant.

As to claim 2, Demos et al. teaches the apparatus according to claim 1, wherein the program selecting unit selects the watermarking program at random, and the area selecting unit selects the at least one area at random (random variations from the master to uniquely create each watermark, column 22, lines 17-27).

As to claim 3, Demos et al. teaches the apparatus according to claim 1, wherein the electronic watermark data include information unique to an image processing apparatus that executes the image processing program (Tying encryption to specific media and/or a specific target location or serial number, column 30, lines 20-27).

As to claim 5, Demos et al. teaches the apparatus according to claim 1, further comprising: a parameter determining unit that randomly determines a parameter necessary to operate the watermarking program selected (The MPEG-2 parameters "lower. Sub. -- Layer. Sub. -- Prediction. sub.—horizontal & vertical offset" parameters used as signed negative integers, combined with the "horizontal & vertical. sub.-- subsampling. sub.-- factor. sub.-- m&n" values, can be used to specify the enhancement layer rectangle's overall size and placement within the expanded base layer, column 14, lines 38-45)

As to claim 6, Demos et al. teaches the apparatus according to claim 1, further comprising: a program rewriting unit that rewrites a jump destination specified by a jump instruction in the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program (The process then repeats for a next unit. Of course, a number of the steps may be carried out in different orders, particularly steps 1400 and 1402, column 28, lines 14-29)

As to claim 7, Demos et al. teaches the apparatus according to claim 6, wherein the program-rewriting unit rewrites the jump destination during an execution of the processing program (note that the computer program execute one or more programmable computers which include the encryption technique, column 27, lines 57-68).

Claims 8-10,12-14 differs from claims 1-7 only in that claim 8-10,12-14 are method claims whereas; claims 1-7 are an apparatus claim. Thus, claims 8-10, 12-14 are analyzed as previously discussed with respect to claims 1-7 above.

Claims 15-17,19-21 differs from claims 1-7 only in that claim 15-17,19-21 are computer claims whereas; claims 1-7 are an apparatus claim. Thus, claims 15-17, 19-21 are analyzed as previously discussed with respect to claims 1-7 above.

The limitation of claim 22 has been addresses above.

### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NANCY BITAR whose telephone number is (571)270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew W. Johns/  
Primary Examiner, Art Unit 2624

Nancy Bitar

3/30/2008